

nih record



ABOVE • Bldg. 1 staff recently cooked and served dinner to guests at the Children's Inn at NIH. See story on p. 2.

features

1
**SCSU Staff Are Highly Trained,
Stand Ready to Treat Ebola Patients**

3
Nobel Laureate Lectures, Feb. 5

5
NIMH, NICHD Partner with Sorority

12
NINR Holds 'Big Data' Boot Camp

departments

2
Briefs

10
Milestones

Ebola Patients Pose Unique Challenges to CC Nurses

By Eric Bock

They're on the job 24 hours a day, 7 days a week. They take vital signs, blood and other samples, refill supplies, serve food, disinfect rooms and take out the trash—all while wearing a head-to-toe protective suit and two pairs of gloves.

They are the nurses who care for patients with Ebola or those who may have

been exposed to the disease. They work at the Clinical Center's special clinical studies unit (SCSU), a modern, high-tech facility that provides high-level isolation capabilities.

Caring for these patients presents a set of unique challenges, said nurse Melissa Hubbard, the unit's clinical manager.

Anyone who enters the patient's room must follow strict procedures for putting

SEE **NURSES**, PAGE 6



Nurses who work on the special clinical studies unit include (from l) Leighann Ebenezer, Debbie Gutierrez, Melissa Hubbard, Kevin Barrett, Kim Adao and Kim Jeffries.

The Power to Influence

Grenny Shares Strategies to Change Human Behavior

By Dana Talesnik

It's frustrating when you ask others to do something and they don't comply. It can be hard enough to influence ourselves to get things done. The challenge might be how to get your colleague to focus on a team project or how to get your neighbor to mow that



Author *Joseph Grenny*

overgrown lawn. Whether you're a department head trying to improve your staff's compliance with safety procedures or a parent trying to get your kid to do his homework, these are all problems of influence.

We spend our lives trying to answer

SEE **GRENNY**, PAGE 4

Ophthalmologist-Turned-Global-Health-Rock-Star Visits NIH

By Kathryn DeMott

Nearly 40 years ago, ophthalmologist Dr. Alfred Sommer moved his young family to Indonesia to confront an epidemic of xerophthalmia, a childhood blinding disease caused by vitamin A deficiency. He had no idea his work would end up saving not only the eyesight, but also the lives of millions of children in developing countries for decades to come.

Sommer, now dean emeritus of the Bloomberg School of Public Health at Johns Hopkins University, talked about that work and more at the Global Health Vision Lecture sponsored recently by NEI's Office of International Program Activities. The talk drew an audience from 18 countries where people tuned in to watch it by live videocast.

Sommer explained that vitamin A is critical for making rhodopsin. A pigment in cells of the light-sensitive retinal tissue at the back of the eye, rhodopsin is important for low-

SEE **SOMMER**, PAGE 8



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NIH...Turning Discovery Into Health

nih record

briefs

Author, Olympian St. John Gives DDM Seminar

The Deputy Director for Management (DDM) announces the second DDM seminar of the 2014-2015 series "Management and Science: Partnering for Excellence." The event on Thursday, Feb. 12 from 11 a.m. to 12:30 p.m. in Masur Auditorium, Bldg. 10, will feature Bonnie St. John, who will discuss "Normal Is Overrated—Aim Higher." She will focus on how to achieve excellence when the circumstances are less than ideal and provide techniques to offset the negative effects of stress, increase resilience and achieve high performance.

Videocasting and sign language will be provided. Individuals who need reasonable accommodation to attend should contact the NIH Training Center at (301) 496-6211 or the Federal Relay Service at 1-800-877-8339.

For more information about the series, visit www.ddmseries.od.nih.gov or call (301) 496-3271.



Video Shows Eye from a Doctor's Point of View

Getting a dilated eye exam is a great way to check the health of your eyes, especially if you are over 60, or at higher risk for eye disease. But aside from making your eyes hyper-sensitive to light, what does the exam accomplish? A dilated eye exam allows an eye doctor to detect many common eye diseases—including glaucoma, diabetic retinopathy and age-related macular degeneration—before symptoms begin. In many cases, these diseases are treatable. However, once symptoms begin, it may not be possible to restore vision that has already been lost.

In order to help people understand how a dilated eye exam works, what the results mean and how to discuss them with a doctor, NEI and the NIH Office of the Director have developed a new animation that shows the exam from a

doctor's point of view. It describes what the doctor sees when examining the retina (the light-sensitive tissue at the back of the eye), macula (the part of the retina needed for sharp, central vision) and optic nerve (which connects the retina to the brain).

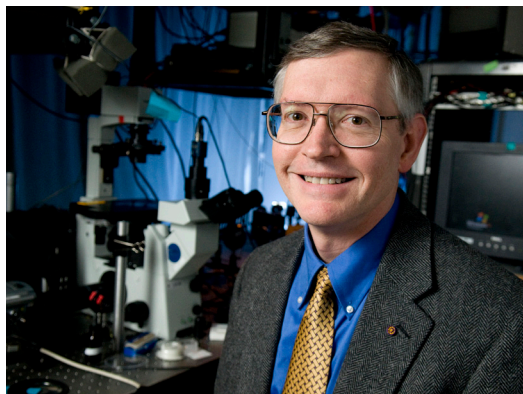
To see for yourself, watch the video at www.nei.nih.gov/eyeexam and share it with others.



Director, OD Staff Serve Dinner at Inn

NIH director Dr. Francis Collins and his wife Diane Baker (above) and several staff members of the Office of the Director cooked and served dinner to Children's Inn at NIH families on Jan. 6. The evening's menu consisted of chicken and vegetable teriyaki, pizza pinwheels and cupcakes baked in ice cream cones. Shown below are other OD chefs (from l) Dr. Stephanie Devaney of the Office of Science, Outreach and Policy, Janet Lambert of OSOP, NIH deputy director for extramural research Dr. Sally Rockey and Daozhong Jin of OSOP.





Dr. W.E. Moerner, who shared the 2014 Nobel Prize in chemistry for the development of a new type of microscopy, will discuss his work in an NIH lecture.

PHOTO: LINDA CICERO, STANFORD NEWS SERVICE

Nobel Laureate Moerner To Speak, Feb. 5

A set of techniques known as super-resolution fluorescence microscopy has opened up a new frontier in cellular imaging. It's now possible to make real-time observations of biological structures and processes in live cells with unprecedented detail, achieving resolutions of 20-40 nanometers (billionths of a meter) and below.

Dr. W.E. Moerner, who shared the 2014 Nobel Prize in chemistry for the development of this type of microscopy, will discuss his pioneering work in a special NIH lecture, "The Story of Single Molecules, from Early Spectroscopy in Solids to Super-Resolution Nanoscopy in Cells and Beyond." Sponsored by NIGMS, the talk will be held on Thursday, Feb. 5 at 2 p.m. in Masur Auditorium, Bldg. 10.


Moerner was the first to detect a single fluorescent molecule. This pivotal 1989 achievement, along with his 1997 discovery of a way to control the number of molecules that are actively emitting light at one time, laid the foundation for several super-resolution microscopy techniques. With these approaches, scientists can now image individual fluorescently tagged molecules rather than collections of molecules.

Currently, Moerner's lab is developing methods—including those known as three-dimensional super-resolution microscopy and orientation microscopy—to extract even more information from each single molecule. The lab is also using super-resolution imaging techniques to explore protein localization patterns in bacteria, study protein aggregation processes in Huntington's disease, define the behavior of signaling proteins in the primary cilium and observe the dynamics of DNA and RNA in cells.

Moerner is the Harry S. Mosher professor of chemistry and a professor, by courtesy, of

applied physics at Stanford University. He received some of the first grants in NIGMS and other NIH cellular imaging initiatives that encouraged the application of physical science tools and approaches to biological studies. Moerner earned B.S. degrees in physics and electrical engineering and an A.B. in mathematics from Washington University in St. Louis in 1975. He received a Ph.D. in physics from Cornell University in 1982.

Among Moerner's other major honors are the Wolf Prize in Chemistry and the Peter Debye Award in Physical Chemistry. He was elected to the American Academy of Arts and Sciences in 2001 and to the National Academy of Sciences in 2007.

For more information or for reasonable accommodation at the lecture, contact Jillienne Drayton at draytonj@nigms.nih.gov or (301) 496-7301. 

Chanock Gives 11th Trent Lecture, Feb. 11

Dr. Stephen J. Chanock, director of NCI's Division of Cancer Epidemiology and Genetics, will present "The Complexity of Genetic Susceptibility to Cancer," the 11th Jeffrey M. Trent Lecture in Cancer Research, on Wednesday, Feb. 11 at 1 p.m. in Masur Auditorium, Bldg. 10. The talk is sponsored by the National Human Genome Research Institute.

Chanock, a leading expert in the discovery and characterization of cancer susceptibility regions in the human genome, has received numerous awards for his scientific contributions to our understanding of common inherited genetic variants associated with cancer risk and outcomes.



He received his M.D. from Harvard Medical School in 1983 and completed clinical training in pediatrics, pediatric infectious diseases and pediatric hematology/oncology and research training in molecular genetics at Boston Children's Hospital and the Dana-Farber Cancer Institute, Boston. Since 1995, Chanock has served as medical director for Camp Fantastic, a recreational camp for pediatric cancer patients, which is a joint venture of NCI and Special Love, Inc.

From 2001-2007, he was a tenured investigator in the genomic variation section of the Pediatric Oncology Branch in the NCI Center for Cancer Research. He also served as co-chair of NCI's Genetics, Genomics and Proteomics Faculty for 5 years. In 2001, he was appointed chief of the Cancer Genomics Research Laboratory (formerly Core Genotyping Facility) and in 2007, chief of the Laboratory of Translational Genomics, both within the NCI Division of Cancer Epidemiology and Genetics. Chanock co-led the Cancer Genetic Markers of Susceptibility project. From 2012 to 2013, he also served as acting co-director of the NCI Center for Cancer Genomics. He was appointed DCEG director in August 2013.

Trent was NHGRI founding scientific director, serving in this role for more than 9 years. His leadership and vision were instrumental in establishing NHGRI's Division of Intramural Research as one of the premier research programs in the world devoted to genetics and genomics. In recognition of his significant contributions to the research environment at NIH, NHGRI established the annual Trent lectureship in 2003. The talk is given by a prominent cancer researcher who brings the kind of energy, creativity and enthusiasm to cancer research that Trent has exemplified throughout his career.

Sign language interpreters will be provided. Individuals with disabilities who need reasonable accommodation to participate in this event should contact Nora Miralieuva, nora.miralieuva@nih.gov or (301) 443-4404.

GRENNY

CONTINUED FROM PAGE 1

two basic questions, said bestselling author Joseph Grenny: Why are they doing that and how can I get them to change?

“The most important capacity you possess as a leader, as a professional, as a scientist, as a human being, is your capacity to influence behavior, that of yourself and of other people,” said Grenny at a recent Deputy Director for Management Seminar in Masur Auditorium. “It’s a capacity that’s embedded in every problem we’re trying to solve...anytime you’re interacting with others.”

Influencers look at the goal and consider what one or two vital behaviors might lead to the desired outcome. In one example Grenny cited, you’re an airline executive who wants to convince passengers to use the bathroom before boarding because it lightens the load, reduces the carbon footprint and lowers costs. How do you get passengers to comply? The Masur audience consulted with one another and suggested: telling passengers they’re helping the environment (a moral cause); posting signs by the boarding ramp (change structure of environment); or making passengers pay to use the plane’s lavatory (punitive measure).

“As you notice you have a habitual dependence on a particular category of influence, it will jar you into awareness of those you’re not using,” said Grenny.

He recounted when his young son Hyrum got arrested for throwing water balloons at passing cars. En route to the police station, Grenny’s first thought was punishment. But instead, he calmly asked his son to imagine how the person felt whose car got hit with the water balloon. Hyrum slumped and said he saw a woman slam on her brakes and cry.

“We can help people change the way they feel about the behavior we hope they’ll adopt,” said Grenny, “just by connecting them with human consequences.”

We tend to look first at possible motivations; maybe that person is lazy or self-centered. This reasoning often makes us revert to rewards or punitive measures to get the intended results. Sometimes that strategy works, but it’s important to consider other sources of influence and not look for the quick fix.

Influencers never assume bad character or moral defect, said Grenny. Instead, influencers assume

the problem is moral slumber; the person may be disengaged at that moment and doesn’t feel connected to consequence. “Moral defect is a life sentence but moral slumber can be changed.”

Take Cletus, a restaurant employee who was slacking on the job. His boss approached and told him a toddler wiped her hand on an unclean table then put her hand in her mouth. Cletus cringed and, right then, went from moral slumber to moral alertness, said Grenny. Influencers are storytellers who can reframe a situation in moral terms and create that human connection.

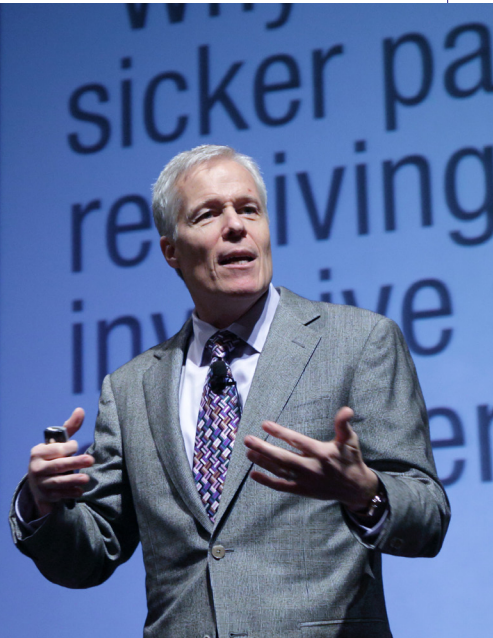
When the chief of staff at a teaching hospital wasn’t washing his hands, we might assume he’s lazy, oblivious or even arrogant. But his colleagues chose to share their personal experiences of hospital-acquired infections, which connected him to the human consequences of not washing up. That changed his behavior.

At another hospital, staff knew good hand hygiene would reduce infections, but some still failed to wash in/wash out. The hospital dramatically increased hand hygiene rates by instituting a 200 percent accountability policy whereby staff had to report problems and intervene if they saw others at risk. It turned out that when doctors thanked the nurses for reminding them to wash in, the nurses were more likely to continue reminding them, leading to even more compliance.

A key component of influence is nurturing ability by providing assistance, skill-building and support. “Leading is teaching,” said Grenny. “Influencers deal with ability first, motivation second.” Perhaps that department head could increase staff compliance by offering additional training or practice. Perhaps your neighbor’s mower is broken and she’d get the job done if she could borrow yours.

We can influence change by understanding and answering why someone may or may not be doing something and then creating an intervention that addresses what’s shaping their choices. Using a mix of personal, social and structural sources of influence can help make that change inevitable.

In large organizations, people often get disheartened that change might take years to occur, but that doesn’t have to be the case. “Influencers understand that the velocity of organizational change is a product of the speed and quality of people speaking up to exert social influence,” said Grenny. “You can create behavior change fairly rapidly if you know what you’re doing.”



“The most important capacity you possess as a leader, as a professional, as a scientist, as a human being, is your capacity to influence behavior, that of yourself and of other people,” said Grenny.

PHOTOS: BILL BRANSON

Mental Health Is Focus of Initiative by NIH, Delta Sigma Theta

The National Institute of Mental Health and the National Institute of Child Health and Human Development have partnered with Delta Sigma Theta Sorority, Inc.—a private non-profit organization that provides community assistance and support through targeted programs—to launch the Mental Health Across the Lifespan Initiative. The effort seeks to raise awareness about postpartum depression (PPD), bullying and successful aging.

Dr. Thomas Insel, director of NIMH, John Jarman, executive officer of NICHD, and Dr. Paulette Walker, national president of Delta Sigma Theta, signed a memorandum of understanding establishing the initiative at Delta Sigma Theta's national headquarters in Washington, D.C., recently.

The initiative has two goals. The first is to educate and raise awareness about the three aspects of mental health through targeted outreach efforts in underserved communities. The initiative also aims to reinforce the importance of recognizing the signs of mental illness and of seeking help and treatment from health care providers.

"This is the right partnership at the right time to encourage community discussions about postpartum depression, which impacts thousands of women and families and is often under-diagnosed and under-treated," said Insel.

The collaboration between NIMH and NICHD will expand and intensify NIH's efforts to increase awareness about the diagnosis, treatment and latest research in the area of PPD. Expansion of efforts to increase support, education and research related to PPD was a key provision of the Affordable Care Act of 2010.

In recent months, the two institutes have also collaborated on a series of Twitter chats to educate the public and health care providers on issues related to youth violence and PPD. The partnership with Delta Sigma Theta will extend the reach of NIH's research-based information directly into the communities served by more than 1,000 DST chapters in the United States and abroad.

"We are ecstatic to reach this day of collaboration to partner with NIMH and NICHD," said Walker. "This initiative brings three families together on one accord and for one vision—a vision and focus on mental health that Delta Sigma Theta has maintained throughout its over 100-year history."



On hand at the signing are (from l) Dr. Triesta Fowler-Lee, Dr. Juanita Sims-Doty, Phyllis Quartey-Ampofo, John Jarman, Lisa Kaeser, Delta Sigma Theta president Dr. Paulette Walker, Dr. Pamela Collins, NIMH director Dr. Thomas Insel, Dr. Philip Wang and Dr. LeShawndra Price.

The partners are currently developing outreach activities for the initiative, which will include training programs for outreach workers, informational webinars and educational materials. "This initiative reinforces our mission to address issues affecting reproductive health and impacting the optimal development of young people—we are happy to be a part of it," said Jarman. 📌

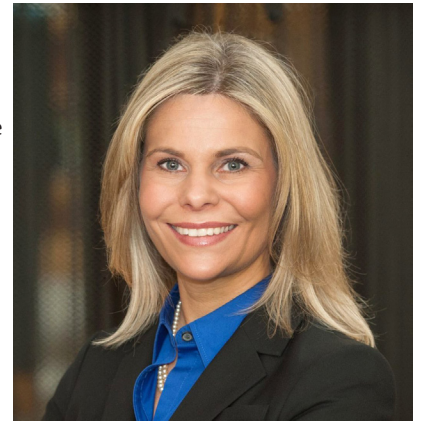
Lucca Named CEO of Children's Inn

Jennie Lucca has been named new CEO of the Children's Inn at NIH. She has served in a leadership capacity at the inn for more than 11 years, overseeing the daily management of resident services, family programs and facility operations.

Lucca is a seasoned human service professional with more than 20 years of experience working in the non-profit sector. Her career began in Anchorage, Alaska, working for The Arc of Anchorage, an organization dedicated to serving individuals with disabilities. Since that time, her focus primarily has been on developing and managing family support programs in community and health care settings.

"Over the past 11 years, Jennie Lucca has demonstrated leadership and creativity in responding to the evolving needs in clinical care and medical research," said Kelvin Womack, chair of the inn's board of directors. "She has a proven track record of managing the activities that are integral to the mission of the inn."

Lucca was born in Anchorage and completed her undergraduate work in child psychology at the University of Minnesota, followed by a master's in social work with a focus on policy, planning and administration from Catholic University. She and her husband Rob have two children and live in Oak Hill, Va.



Right:
SCSU nurse Meghan Schlosser stands in one of the unit's patient care rooms.



NURSES

CONTINUED FROM PAGE 1

Below:
Shown applauding during a press conference at NIH on Oct. 24 are nurses (back row, from l) Hubbard, Barrett, Schlosser, Anitra Fitzgerald-Monroe and Gutierrez. In front are (from l) CC director Dr. John Gallin, Cathy, Nina and Diana Pham and NIAID clinical director Dr. H. Clifford Lane.

PHOTOS: BILL BRANSON, KIM SEIGFREID

on—donning—and taking off—doffing—protective equipment that covers the whole body, she said. This equipment includes two pairs of gloves, two pairs of shoe covers, a Tyvek suit, disposable gown and a powered air-purifying respirator.

“We can’t just run into the patient’s room and give them something,” she said. “It takes 10 minutes to put our protective equipment on.”

Before the nurses can enter, someone called a “WatSan” reads a step-by-step checklist that walks the nurses through the donning and doffing procedures. WatSan is short for water and sanitation. This can be a nurse, physician or laboratory worker trained in the special procedures for putting on and taking off the protective gear, she noted. The WatSan then inspects the protective equipment to verify that all areas of the body are covered.

The rules stipulate that two nurses must enter

the patient’s room at a time, Hubbard said. One nurse performs patient care duties such as monitoring vital signs or collecting lab samples. The other watches for any breaches in the protective equipment and disinfects the room.

Monitoring an Ebola patient’s vital signs differs from monitoring those of other patients because the nurses frequently can’t use standard equipment, said nurse Meghan Schlosser. For instance, the nursing staff uses a stethoscope that broadcasts to a Bluetooth speaker to listen to a patient’s breath sounds. This is because the nurses can’t fit the ear pieces of a standard stethoscope past their protective head gear.

“We have to think outside the box,” said nurse Kevin Barrett. “We’re constantly tweaking how we care for patients and making sure that we’re providing the best possible care that we can.”

Hubbard added that the nurses can only wear their protective equipment for 2 hours at a time because it raises their body temperature 3-4 degrees F. They have to leave to rehydrate. After their 2 hours are up, two other nurses go into the room for 2 hours.

For SCSU nurses, work doesn’t end once they leave the patient’s room. Schlosser said the nurses coordinate closely with each other to make sure that everyone in the unit knows what they need to do. They also provide doctors and other health care specialists with information.

“We’re never off,” she added.

Access to the unit is restricted to essential per-





Schlosser's attire is carefully designed to prevent transmission of pathogens such as Ebola.

sonnel. As a result, SCSU nurses have more responsibilities than other nurses.

Within the unit, "The pharmacy department doesn't fill medicines, the central hospital supply doesn't refill supplies, the nutrition department doesn't deliver food, the housekeeping staff doesn't clean the room or empty the trash," said Schlosser. "We don't have the outside help." Everything is delivered to the door of the unit, then the nurses take over.

Barrett compared working in the unit to scuba diving.

"When I put on my equipment, everything looks murky—like I'm underwater," he said.

For scuba divers, it's not easy getting to the water's surface. If something goes wrong, such as an equipment failure, "it's really hard to ask for help," Barrett said. Divers have to rely on their training and devise a plan to fix the problem on their own.

That's what it's like in the SCSU. So far, nothing has gone wrong. If something were to happen, the nurses know that they can trust each other's ability to solve problems.

"Whatever happens has to be okay," Barrett said. "We have to use what we've learned in training and apply it to new situations."

Following isolation procedures was nothing new for the unit staff, Hubbard said.

"Our unit's mission is to isolate and treat laboratory workers who were occupationally exposed to infectious diseases at feder-

al research facilities," she said. "We've prepared and trained in support of that mission for years." In fact, the SCSU opened in 2010 to care for workers potentially exposed to pathogens at the BSL-4 laboratories at Ft. Detrick.

The majority of SCSU nurses have a background in critical care medicine. Hubbard said that experience helps them make decisions under pressure.

Caring for a patient coming from West Africa or elsewhere in the United States takes more resources than the 10-nurse staff could provide, she said. If a patient is unstable, 5 nurses work on a shift; if a patient is stable, 4 nurses handle the shift. The patient receives care around the clock.

To meet the need, the SCSU recruited volunteers from other units and trained them in the standard procedures of infection control. So far, Hubbard estimates that they've trained close to 70 volunteers.

"We trained nurses how to take care of patients while wearing protective equipment, collect laboratory samples, take out the trash and clean and disinfect the room," she said. "In addition, we also had to make sure nurses were comfortable working in the unit and reassure them that they could go home at night to their families."

"We have to think outside the box. We're constantly tweaking how we care for patients and making sure that we're providing the best possible care that we can."

Anitra Fitzgerald-Monroe, a nurse who volunteered to work on the unit, called the experience "totally different" from what she normally does because nurses "can't leave the unit during their shifts."

Typically, patients and nurses can step outside a patient's room to make a phone call or pick up lunch in the cafeteria. The nurses in the SCSU can't do those things. They have to stay in the unit and can't leave until they take a shower.

And the challenges don't end once they leave the unit. One nurse was uninvited to a party; another nurse's babysitter quit. Barrett said these things are just "part of the job" and "you have to let it roll off your back."

The experience has brought the unit closer together.

"You know that you can trust these people," Schlosser said. "We have each other's backs."

Despite the challenges, the nursing staff has done "an extraordinary job," said Hubbard. She credited the unit's success to the nurses' dedication to the job.

Concluded NIAID deputy clinical director Dr. Richard Davey, "The true heart and soul of the unit's success in dealing with [Ebola admissions] have been the esprit and dedication of the nursing staff in pulling together an organized, multidisciplinary approach to delivering care in the safest and most efficient manner, always with utmost attention to the needs of the patient, the safety of the caregivers and consideration for the need to preserve the normal flow of routines elsewhere in the hospital." ②



SOMMER

CONTINUED FROM PAGE 1

Above:

NEI director Dr. Paul Sieving (l) and NEI deputy director Dr. Belinda Seto welcome Dr. Alfred Sommer (second from r) to NIH. Sommer's lecture was arranged by Dr. Gyan Prakash (r), associate director of NEI's Office of International Program Activities.

PHOTO: SHERRITA WALLS

light vision. Anyone who has ever stepped from a sunny place to a dark one knows it takes a few minutes for your eyes to adjust before you can see anything. During those first moments in the dark, your eye is regenerating rhodopsin. Someone who is vitamin A-deficient isn't able to generate it and experiences night blindness. When vitamin A deficiency is more severe, the cornea can become dry and skin-like. When left untreated, the cornea can develop ulcers and even melt entirely, leading to severe inflammation and blindness.

In the 1970s, when Sommer was working in Indonesia, the World Health Organization's recommended care for xerophthalmia was to administer a water-based vitamin A solution by injecting it into muscle. However, water-based injectable preparations were not even commercially available. Seeking an alternative, he discovered that oil-based vitamin A supplements were readily available, inexpensive and just as effective for preventing and curing xerophthalmia.

By Sommer's calculation, 2 cents worth of oral vitamin A per patient could help prevent the country's more than 63,000 new cases—and Asia's 500,000 new cases—of corneal ulcers each year and prevent the associated blindness.

But it was another discovery that would forever change WHO policy on vitamin A supplementation in poor and underserved parts of the world.

A few years after returning home to the U.S., digging through reams of data from an 18-month follow-up study of mild xerophthalmia among 5,000 Indonesian children, Sommer spotted a pattern: Many children who had reported night blindness at baseline were not around for follow-up visits months later. That's because they had died at a staggering three-fold greater rate compared to children without any signs of the eye disease. Children who at baseline had Bitot's spots (foamy white lesions on the surface of the eye that are

associated with slightly more severe vitamin A deficiency than night blindness and develop as the cells lose their mucus membrane layer) had a six-fold increase in mortality.

"I thought, 'Holy cow, what's going on here?'" Sommer said.

Initially, the assumption had been that night blindness and Bitot's spots were warning signs of mild vitamin A deficiency. Yet children with these supposedly "early" warning signs were dying at much higher rates than were children without the early signs. Even after adjusting for other factors, such as malnutrition and pneumonia, he found a strong relationship between vitamin A deficiency and death.

Further research conducted by Sommer and his team revealed that the children were dying primarily from measles and severe diarrhea and that vitamin A deficiency was likely increasing their vulnerability to these conditions.

By 1992, large-scale, randomized controlled trials in Nepal, Indonesia and India shored up the evidence: Preventing vitamin A deficiency decreased all-cause mortality by one-third, while treating children already suffering from severe measles with oral vitamin A reduced their case-fatality rate by 50 percent.

"Now...we can look back on that remarkable finding and say that Dr. Sommer saved the lives of more children than any other person," said NEI director Dr. Paul Sieving. Sommer received a Lasker Award in 1997 for this research.

In addition to his work on xerophthalmia, Sommer has conducted research on other blinding eye diseases worldwide.

Efforts to treat and eradicate trachoma, a leading infectious cause of blindness in the developing world that scars the inside of the eyelid, causing eyelashes to turn inward and scrape against the cornea, brought Sommer to Bedouin communities of Saudi Arabia and to remote villages in Chiapas, Mexico. From a survey comparing children in Chiapas with and without trachoma, the key difference turned out to be the frequency with which they washed their faces with water. This simple intervention became a core of the public health trachoma strategy known as SAFE (surgery, antibiotics, facial cleanliness and environmental hygiene).

The Global Health Vision Lecture series is also sponsored by the NIH global health interest group and Fogarty International Center. To watch a videocast of Sommer's lecture, visit <http://videocast.nih.gov/summary.asp?Live=15252&bhcp=1>. ●



Grady Highlights Importance of Evidence-Based Practice

NINR director Dr. Patricia Grady was the keynote speaker at the 6th annual Nursing Research and Evidence-Based Practice Symposium, which brought together an

interdisciplinary group of students, clinicians and leaders in academia from across the north-east region of the U.S. She discussed the role of nursing science in evidence-based practice and NINR's efforts to build the scientific foundation for clinical practice.

"The bidirectional and collaborative nature of nursing research is critical to the success of bringing research advances into evidence-based practice," said Grady. "Health practitioners, patients and other community stakeholders play important roles that inform research and improve clinical practice and patient outcomes."

At the 2-day event, held in Burlington, Vt., she emphasized how nurse scientists and NINR play significant roles in developing the evidence base for effective clinical practice, assessing future needs in health care and establishing new programs to address those needs.

"Nursing science plays a critical role in the health research enterprise, bridging the gaps between the bench, health care settings and communities, as well as translating the findings to clinical care," Grady concluded. "Rather than focusing on any particular disease or condition, nursing science addresses the needs of individual patients—improving their overall health and quality of life."

Study Seeks Healthy Older Adults

Healthy older adults ages 55-75 are invited to participate in an outpatient research study investigating the benefits of omega-3 oil and blackcurrant supplements on vascular health. The goal of the study is to determine whether the supplements improve blood flow and blood vessel function that can affect your heart. Eligible participants must be medication-free and in good general health. The study will be carried out in an outpatient clinic and includes 4 visits over 6 months. Compensation is provided. For more information, call 1-800-411-1222 (TTY 1-866-411-1010) and refer to study 14-NR-0034.



NIAMS director Dr. Stephen Katz and deputy director Dr. Robert Carter (front, third and fourth from l) with congressional staff, NIAMS Coalition members and NIAMS staff at the recent NIAMS Tour Day

PHOTO: BILL BRANSON

Congressional Staff See 'Inside NIAMS Labs'

NIAMS recently welcomed congressional staff to the Clinical Research Center to learn more about NIH and NIAMS and tour several intramural labs. The biennial event is sponsored by the NIAMS Coalition, an independent consortium of close to 90 professional and voluntary organizations whose goal is to raise awareness about NIAMS research. Five congressional staffers took part in the visit, representing appropriations and authorizing committees, as well as member offices. Several members of the NIAMS Coalition leadership also attended.

The event featured presentations from NIAMS director Dr. Stephen Katz and scientific director Dr. John O'Shea. In addition, participants met with several NIAMS intramural researchers, as well as a patient living with lupus, Shirley Aviles, who has been participating in research studies and receiving treatment at the Clinical Center for several years. Congressional staff and NIAMS Coalition members then toured a NIAMS intramural research lab, where they saw demonstrations that focused on basic, translational and "bedside-to-bench" studies currently under way.

At the basic research station, staff from the Laboratory of Molecular Immunogenetics, led by Dr. Raphael Casellas, demonstrated how green fluorescent protein and advanced imaging technologies allow researchers to watch proteins in real time within a single cell.

Dr. Robert Colbert, chief of the Pediatric Translational Research Branch, showed how induced pluripotent stem cells generated from healthy volunteers and disease-affected patients are being used to identify potential targets for interventions.

The third demonstration, led by staff from Dr. Mariana Kaplan's Systemic Autoimmunity Branch, showed how a normal biological process meant to protect us from pathogens goes awry in certain autoimmune diseases like lupus and how understanding this in the lab is leading to better clinical care of patients.

After leaving the NIAMS research lab, the group visited the clinical movement analysis lab and learned how modern digital technologies are being used to help patients with movement disorders.

milestones



Above:
Dr. Story Landis and her husband Dr. Dennis Landis share a light moment at the reception.

Below:
Among the gifts to Landis at the farewell event was a pin in the shape of a neuron, commissioned by artist Reiko Ishiyama and presented by NIH deputy director for extramural research Dr. Sally Rockey (l). Landis also received a large aerial photo of the PNRC signed by NINDS staff.



PHOTOS: BILL BRANSON

Landis Retires from NINDS

By Paul Girolami

Passionate about science, no nonsense, unfiltered—these were just some of the traits mentioned repeatedly by nearly every IC director in a videotaped tribute to Dr. Story Landis, who retired recently as NINDS director. More than 200 colleagues crowded into the atrium of the Porter Neuroscience Research Center for a reception honoring Landis, who had been NINDS director since 2003 and its scientific director for the previous 8 years.

“We are losing one of the true giants at NIH,” said NIH director Dr. Francis Collins. “Very few can match Story’s towering intellect, boundless energy, commitment to biomedical research and scientific expertise.” He called the announcement of the BRAIN Initiative by President Obama in April 2013 “a major testimony” to Landis’s contributions to NIH. Collins also sang a parody of the Bob Dylan song *If Not for You* as part of his tribute.

During her tenure at NINDS, Landis was instrumental in reshaping the NIH intramural research community and in the development and building of the PNRC. Between 1999 and 2000, under the oversight of NINDS director Dr. Gerald Fischbach, she led the movement together with then-NIMH scientific director Dr. Robert DeSimone to bring a sense of unity and common purpose to 200 laboratories from 11 different NIH institutes, all of which conduct leading-edge clinical and basic neuroscience research. The PNRC now houses 99 investigators from 10 ICs who share intersecting interests.

Landis also was a founding co-chair of the NIH Blueprint for Neuroscience Research, another effort to break down traditional research silos and foster trans-NIH activities in the brain sciences. In 2007, she was named chair of the NIH stem cell task force and in 2012 she became the inaugural chair of the interagency pain research coordinating committee. Along with others at NIH, she designed the K99/R00 NIH Pathway to Independence Award, which offers promising postdoctoral scientists protected training time and funding to secure an independent research position. She also was directly involved in developing a research program funded by NIH and the National Football League that looks at the effects

of repeated head trauma and, specifically, chronic traumatic encephalopathy and concussion. She strongly promoted the role of young investigators in all areas of neuroscience and her mission and vision have been felt throughout the field.

NINDS acting director Dr. Walter Koroshetz emceed the event and presented the Maine-bound Landis with several gifts, such as a pair of snowshoes he referred to as “Maine slippers” and a pair of galoshes he called “Maine dancing shoes.” NINDS scientific director Dr. Alan Koretsky noted that NINDS now has 90 intramural scientists, three-quarters of whom were recruited by Landis. One of NINDS’s principal investigators presented Landis with a key to her own PNRC office, where she will work as an NINDS scientist emeritus when she is in Bethesda.

Among other tributes was a videotaped message from former NIH director Dr. Elias Zerhouni calling Landis “one of the best appointments I ever made; she speaks truth to power” and Sen. Tom Harkin entering remarks into the *Congressional Record* in praise of Landis’s “courage” and “ability to bridge gaps,” in particular “the divide between scientists and policymakers.” Harkin recalled their history of working together and said Landis always spoke “with the poise of a leader at a prestigious national institution, the rigor of a renowned scientist and the insight of a truly extraordinary pioneer working on the frontiers of our knowledge of the human brain.”

CSR director Dr. Richard Nakamura said to Landis, “Your record of endurance defied some of the oddsmakers who at the beginning thought you were too fundamentally honest to have a long career in the federal government. You inspired a generation of us with your sense of honesty, your sense of humor and your appropriate use of sarcasm to help all of us understand that honesty and use of science in the long-term was the way to make a real difference.”

NICHHD director Dr. Alan Guttmacher added, “NIH is sometimes too bland a place—we bump around in black and white, but one could always count on Story showing up and adding living color to the conversation.”

An appreciative Landis told the crowd, “I’ve had the privilege of working at NINDS the past 19 years, as scientific director and the last 11 as director. I was fortunate to participate in remarkable changes across NIH and in neuroscience and have the opportunity to work on exciting, innovative and rewarding neuroscience projects such as the NIH Blueprint and the BRAIN Initiative. I’m extremely thankful for the opportunity; it’s been a great run.”



Dr. Richard Aragon, chief of the NIGMS Office of Program Planning, Analysis and Evaluation

PHOTO: CHIDINMA OKPARANTA

Aragon Named Chief of NIGMS Office

Dr. Richard Aragon is the new chief of the NIGMS Office of Program Planning, Analysis and Evaluation. This role includes advising on the institute's strategic planning activities, analyzing and evaluating its research and training programs and serving as its legislative liaison.

"Richard brings a unique blend of experiences to this position," said NIGMS director Dr. Jon Lorsch. "He has the ability to operate across multiple scientific areas and bridge program and policy. His expertise in evaluation and commitment to using data to drive policy decisions make him an ideal choice to lead this key office."

Prior to joining NIGMS, Aragon held two positions in the Office of the Assistant Secretary for Financial Resources within the Office of the HHS Secretary: directing the Division of Program Integrity Assessment, Integration and Oversight and the Division of Outreach, Communications and Training. His responsibilities included spearheading implementation of the secretary's initiative on program integrity and establishing the agency's first enterprise risk management framework.

Before that, Aragon was a program director in the NCI Office of Technology and Industrial Relations. During his time there, he served as a Brookings Institution executive fellow in the office of Sen. Jon Tester of Montana, where he worked on legislation related to science and technology policy and national health care reform. Earlier in his career, Aragon was a senior policy analyst in the NIH Office of Science Policy and a research biologist in NIAAA's Laboratory of Neurogenetics.

Aragon earned a B.A. in neurobiology from the University of California, Santa Cruz, where he was a participant in what is now the NIGMS Maximizing Access to Research Careers program. He received a Ph.D. in biochemistry and molecular biology from George Washington University Medical Center and conducted post-doctoral research at Georgetown University's Lombardi Comprehensive Cancer Center.



NCI's Lynn Mourned

William R. Lynn, 68, a federal health officer who helped manage anti-smoking efforts for NIH and the Office of the Surgeon General, died Nov. 18 at a hospital in the Villages, Fla. The cause was heart disease.

Lynn was born in Wabash, Ind., and was a wounded combat veteran of the Vietnam War. He was a health officer in Indiana and Massachusetts before joining NIH in 1979. Among his projects, he helped run two of the nation's first community-based anti-smoking initiatives—COMMIT and ASSIST. He also edited Surgeon General C. Everett Koop's report on the effects of secondhand smoke and helped hire celebrities, including Brooke Shields and Mia Hamm, as anti-smoking spokespersons. Upon his retirement in 2002, Lynn moved from Frederick, Md., to Florida.

"Bill was a dear friend and colleague to me for many years," said Bob Vollinger of NCI's Tobacco Control Research Branch. "I learned so much from Bill over the years and came to truly respect his vast wisdom and broad public health expertise. But even more so, I deeply appreciated his friendship and good advice. Bill always had a huge smile and a great joke or two to share. And he was always trying to do something to make the world a better place for others. He had a great spark that could always bring joy to others."

Lynn is survived by his wife of 47 years, Rebecca Ann Lynn, and three sons, Matthew Lynn of Sharon, Conn., Jason Lynn of Englewood, Fla., and Ryan Lynn of Tampa, Fla. He is also survived by his grandson Liam Lynn of Tampa; his brother, John Lynn, and sister-in-law, Beverly Lynn of Wabash and numerous nieces, nephews and grand nieces and nephews.

A memorial service will be held in the spring at a location to be announced. Donations may be made in Lynn's honor to the Wounded Warrior Project or to the American Heart Association.



NCI's Harford Gets Alumni Medal of Merit

Ohio University alumnus Dr. Joe B. Harford recently received the Medal of Merit at the annual Alumni Awards Gala on homecoming weekend. The medal is awarded to alumni who have achieved distinction in their chosen fields. Harford is senior project officer at NCI's Center for Global Health. During his 18 years with the institute, he served for more than a decade as director of the Office of International Affairs, the forerunner of the Center for Global Health, and also served as associate director for special projects and chief of staff for the Office of the NCI Director. Prior to joining NCI in 1996, Harford served as chief scientist for RiboGene Inc. and is the co-inventor on two issued U.S. patents related to drug discovery. He has published more than 130 scientific papers.



ORS's Peterson Honored

Steve Peterson of the Office of Research Services was recently approved by the North American Application Review Commission to receive the certified emergency manager credential. CEM designation is the highest honor of professional achievement available from the International Association of Emergency Managers, which includes more than 9,000 professionals whose goals are saving lives and protecting property and the environment during emergencies and disasters. Peterson successfully completed an extensive credentials package, a management essay and a written examination.



The first 3 days of the NINR Big Data in Symptoms Research Boot Camp took place in the new FAES Academic Center, which was able to accommodate the nearly 100 participants.

NINR Conducts Inaugural Big Data in Symptoms Research 'Boot Camp'

Nearly 100 graduate students, faculty and clinicians participated in NINR's first Symptoms Research Methodologies Boot Camp focused exclusively on big data. The week-long training took place recently, with the interdisciplinary group of students splitting their time between the new Foundation for Advanced Education in the Sciences Academic Center and Bldg. 60.

NINR director Dr. Patricia Grady highlighted the challenges and opportunities of working with big data in her opening remarks, noting, "The promise of big data is it enables us to raise new questions and create new knowledge about old problems. The ability to tap this promise, however, hinges on our ability to develop the skills to work with large data sets in a meaningful way. Our goal with this boot camp is to introduce you to powerful big data research tools and techniques that can be used to improve patient outcomes and safety."

Participants said the experience surpassed expectations. Faculty included nationally and internationally known big data experts from several fields including nursing informatics, clinical informatics and bioethics. The course quickly ramped up from foundational knowledge to case studies of how big data are being incorporated into research now. Students learned data-mining techniques for research and knowledge development and discussed some of the ethical, legal and regulatory issues in data use and reuse.

Interest in this year's theme ran high, with registration closing out for the traditional 75 seats in less than 8 hours. An additional 25 seats were added to accommodate as many from the waiting list as possible. Those who did not make it in to the recent camp will have another opportunity—the theme of NINR's 2015 boot camp will again be big data.

Boot camp registration typically opens in April, so mark your calendar to check the camp web page at www.ninr.nih.gov/bootcamp.

NIBIB Director Receives Gold Medal from ARR

NIBIB director Dr. Roderic Pettigrew recently received the first-ever Gold Medal Award from the Academy of Radiology Research. ARR is an alliance of 28 societies that works nationwide to enhance patient care through advances in biomedical imaging.



Renee Cruea (c), executive director of ARR, joins NIBIB director Dr. Roderic Pettigrew (l) and Dr. Jonathan Lewin, ARR president, at the Gold Medal event.

ARR created the award to highlight the impact biomedical imaging has had on modern health care and to encourage continued leadership and advances in the field. The award was presented at the 2014 Radiological Society of North America meeting in Chicago.

ARR president Dr. Jonathan Lewin said, "We are inspired by, and are the beneficiaries of, Dr. Pettigrew's remarkable talents and efforts in advancing imaging research and the dramatic difference it has made on the practice of medicine. The NIBIB has led the way in supporting a new breed of innovative researchers who converge multiple disciplines to help achieve more effective, more accessible and less costly health care."

Pettigrew has served as director of NIBIB since its establishment in 2002. Under his leadership, the institute has become a leader in biomedical imaging research and in the development of cutting-edge imaging technologies that affect the way diseases are diagnosed and treated.

Currently, NIBIB funds approximately 900 grants to researchers around the globe annually. After its first year in existence, grant applications increased by 450 percent and more than half of these were submitted by investigators new to NIH—a testament to the interdisciplinary nature of NIBIB's mission. Recently, there has been a dramatic increase in the number of applications that have scored within the top 10th percentile, up 80 percent in the last 4 years alone.

Advances in biomedical imaging during Pettigrew's tenure as NIBIB director include: a 20-fold improvement in MRI spatial and temporal resolution—enabling more sensitive, more precise and faster studies and new applications; the world's first hand-held battery-powered Doppler ultrasound imaging system; and research to reduce routine CT radiation dose 10-fold, leading to doses that are comparable to levels seen with natural environmental exposure in a year.

Pettigrew said, "This is a moving honor. I accept this first academy gold medal on behalf of the many individuals who comprise NIBIB and the early groundbreaking leaders who dreamed of creating the institute, saw it as a necessity and worked tirelessly to make it a reality. I'm incredibly gratified by the critical role NIBIB has played in improving the nation's health."

Cooper Gives NIH Director's Lecture, Feb. 4

Dr. Max D. Cooper, a professor of pathology and laboratory medicine at Emory University School of Medicine, will deliver the annual NIH Director's Lecture (first of three) on "Tracing the evolution of adaptive immunity," on Wednesday, Feb. 4, at 3 p.m. in Masur Auditorium, Bldg. 10. Cooper's work focuses on the antibody-producing cells of the immune system; he is currently applying his research on lamprey immune proteins to studies of HIV. The lecture is part of the NIH Director's Wednesday Afternoon Lecture series. For information and reasonable accommodation, contact Jacqueline Roberts, (301) 594-6747.

